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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Franciscus Hubertus Maria Stappers

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EXAMINER

PAUL, JESSICA MARIE

ART UNIT

PAPER NUMBER

1767

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,331	<b>Applicant(s)</b> STAPPERS, FRANCISCUS HUBERTUS MARIA	
	<b>Examiner</b> Jessica Paul	<b>Art Unit</b> 1767	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-22 is/are pending in the application.  
     4a) Of the above claim(s) 5,6 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-9, 11-16, 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in EPO on 8/14/2003. It is noted, however, that applicant has not filed a certified copy of the EP03077574.6 application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 11, 12, 16, 21, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Laroche (US Patent No. 5348763), submitted on IDS.

Regarding claims 1, 11, 12, 16, 21, and 22; Laroche teaches, in a preferred embodiment, a two-phase coating system comprising benzoyl peroxide (catalyst) fixed to vitreous beads (instant claims 11 and 12) which were then dried at ambient temperature, ultimately producing a powder. The examiner notes that powder is merely defined as matter in a finely divided state, as such Laroche teaches the vitreous beads have a diameter of between 150 and 250 microns, thus reading on applicants required "powder phase." Laroche discloses that the beads carry 8g of peroxide per kilogram (0.80 wt. %, as calculated by examiner, instant claims 16, 21, and 22). The acrylic resin

Art Unit: 1767

paint (liquid phase, polymer binder) is sprayed onto the road, and onto the paint are sprayed the catalyst containing vitreous beads [col8, line54-col9, line3; ex1].

The examiner notes that the terms "cross-linkable" and "sprinkeable" only indicates that the coating system be capable of being cross-linkable by polar reaction, and that the system be capable of sprinkling. The examiner also notes that "is formulated for" in an intended use limitation. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Regarding claim 9; Laroche teaches the invention includes a said filler material wherein a peroxide, for example benzoyl peroxide which is available as a powder which is easy to handle, is fixed to the surface of the filler material as said catalyst [col7, line28-32].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laroche (US Patent No. 5348763) as applied to claim 1 above, and further in view of Ashley et al. (US Patent No. 5039718).

Laroche adequately discloses the basic claimed two-phase coating system as set forth above, with respect to claim 12.

Regarding claims 14-15 and 20: Laroche fails to teach the claimed particle size and amounts of sand. However, Ashley et al. teaches silica fillers (col6, line35-45) wherein the particles may be a mixture of two or more sets of particles with two widely differing mean particle sizes such that particles of one or more set can fit in the interstices of those of the others within the matrix (col7, line5-10). Laroche and Ashley are analogous art because they are from the same field of endeavor, namely olefin/acrylic type resins employing fillers. At the time of the invention a person of ordinary skill in the art would have found it obvious to have used a multimodal particle distribution, as taught by Ashley, in the invention of Laroche, in order to achieve high filler loadings (col7, line5-10 of Ashley). With regard to the particular claimed particle size(s) and ranges of the multimodal distribution, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. See MPEP 2144.05.

Multimodal distributions, as taught by Ashley et al., are used to fill interstitial space between fillers and achieve a higher loading (col7, line5-10). It then flows naturally that there must be a higher percentage of the larger filler with a lower percentage of the smaller filler(s), such that the interstitial spaces are filled.

Claims 1, 2, 4, 8, 11, 12, 16, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell et al. (US Patent No. 6316535), submitted on IDS, and in view of Honnick (US Patent No. 6669835), submitted on IDS.

Regarding claims 1, 2, 4, 11, 12, 16, 21, and 22; Caldwell et al. teaches an aqueous, two component system for coating a substrate, comprising a catalyst, such as dibutyltin dilaurate (Lewis acid, instant claim 2) [col3, line5-10], a filler such as sand or chalk (instant claim 12) [col3, line11-25], the first component comprising a polyol, the second component comprising a polyisocyanate [col5, ex1] (instant claim 4). Caldwell et al. teaches the catalyst is employed in an amount of 0.4 wt. % based on 100 wt.% of the filler (instant claims 16, 21, and 22). The examiner notes that prior to the addition of the filler into the first component and/or the second component, the filler is in a separate powder phase, thus reading on applicants' required two phase system.

Caldwell et al. fails to teach the powder phase, comprising a solid carrier material and at least a part of the catalyst and/or of a precursor of the catalyst. Honnick teaches aqueous polyurethane compositions containing polymerizable components and a water incompatible catalyst sorbed onto an inorganic particulate carrier [abs]. The particulate carrier is a free flowing solid prior to sorption of the catalyst onto it and the amount of catalyst sorbed onto the carrier is preferably less than the amount that would interfere with the carrier remaining a free flowing solid (powder) after evaporation of any solvents used to liquefy the catalyst (instant claim 11) [col6, line53-59]. The inorganic particulate carrier may be silica (sand) (col5, line45-50). The catalyst may be dibutyltin dilaurate (col5, line45-50). Caldwell et al. and Honnick are analogous art because they are both

Art Unit: 1767

concerned with the same field of endeavor, namely aqueous polyurethane coating compositions employing organotin catalysts. At the time of the invention, a person having ordinary skill in the art would have found it obvious to sorb the organotin catalyst on a filler, as disclosed by Honnick, in the invention as disclosed by Caldwell et al., and would have been motivated to do so, in order achieve an economical catalyst which can be used in water dispersed or emulsified polymerizable components, as suggested by Honnick. Furthermore, one having ordinary skill in art would understand that by sorbing the catalyst to the filler would ultimately reduce wasted catalyst, thus keeping excess costs minimal.

The examiner notes that the terms "cross-linkable" and "sprinkeable" only indicates that the coating system be capable of being cross-linkable by polar reaction, and that the system be capable of sprinkling. The examiner also notes that "is formulated for" in an intended use limitation. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Regarding claim 8; Caldwell et al. teaches that long chain tertiary amines may be used as a catalyst as an alternative to dibutyltinlaurate or zinc octoate (col3, line5-10).

***Allowable Subject Matter***

Claims 3, 7, and 13 are still objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. See Office Action dated 5/11/2010.

***Response to Arguments***

Applicant's arguments, filed 9/13/2010, with respect to claims 1-4, 8, 9, 11-16, and 20-22 have been fully considered and are persuasive. The rejection of claims 1-4, 8, 9, 11-16, and 20-22 has been withdrawn.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Paul whose telephone number is (571)270-5453. The examiner can normally be reached on Monday thru Friday 8:00- 6:00p; alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1767

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/

Supervisory Patent Examiner, Art Unit 1767

Jessica Paul

Examiner

Art Unit 1767

/JMP/